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10/530,740	10/13/2005	Thomas Ahrndt	2002P09336WOUS	9892

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170 Wood Avenue South
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EXAMINER

TAHA, SHAQ

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2446

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,740	Applicant(s) AHRNDT, THOMAS	
	Examiner SHAQ TAHA	Art Unit 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29 and 32 - 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29 and 32 - 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a Non-final action for application number 10/530,740 based on after a Request for Continued Examination filed on 05/04/2009. The original application was filed on 10/13/2005. Claims 29, and 32 - 43 are currently pending and have been considered below. Claims 1 – 28, 30, and 32 are canceled. Claims 29, 32, and 34 are amended. Claims 35 – 43 are new claims. Claims 29 and 37 are independent claims.

Response to Arguments

Applicant's arguments with respect to claims 29, 32 - 43 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29, 33 – 40, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 2004/0059821), in view of Komine et al. (US 7,281,027)

Regarding claim 29, a method for controlling an authentication in a telecommunications network, comprising: providing, at a subscriber terminal device, an external data transmission interface, **[a wide area network (WAN) interface 105b, as shown in Fig. 1, Ref # 105b, (Tang et al., Paragraph 40)],**

the external data transmission interface having a physical data transmission channel, and an authentication channel configured to interface with a telecommunications network, **[In the case of the dial-up mode of application, a valid PPP username and password is transmitted from the user terminal using a user interface discussed in further detail, (Tang et al., Paragraph 42)],**

connecting the subscriber terminal device to an internet service provider, **[the remote server 107 is configured to connect to the data network 109 via a communication link 108. As discussed above, the data network may include the Internet or a corporate data network, (Tang et al., Paragraph 41),**

the connection by the external data transmission interface to the internet service provider via a telecommunications central office exchange, **[The access device 105 is further configured to include a wide area network (WAN) interface 105b to operatively couple to a remote server 107 through a WAN connection 106, (Tang et al., Paragraph 40)],**

monitoring data traffic received on the external data transmission interface and which is received by the subscriber terminal device, **[the user terminal LAN connection to the access device 105 is monitored to detect when the user terminal 101 has transmitted a request to terminate the PPP session, or when the**

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WAN connection 106 to the access device 105 is disconnected, (Tang et al., Paragraph 53)],

disconnecting the subscriber terminal device from the internet service provider by a logoff procedure in the authentication channel when the monitored data traffic is not received after a duration of time, **[If there is such a disconnect or line down detection, at step 310, the PPP session corresponding to the user terminal 101 is disconnected, while the access device 105 assigns a private IP address to the disconnected user terminal 101 at step 303, and the procedure returns to step 301, (Tang et al., Paragraph 53)],**

Tang et al. fails to explicitly teach controlling logon and logoff procedures in the authentication channel based on the monitored data traffic,

Komine et al. teaches an account authentication means including a user account management table for managing user account information and managing logon/logoff state information indicating a logged-on/logged-off state of the server application, **(Komine et al., Col. 9, Lines 38-45)**, to provide services and to a network monitoring system for performing distributed processing to monitor a network, **(Komine et al., Col. 1, Lines 12-16)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Tang et al. by controlling logon and logoff procedures in the authentication channel based on the monitored data traffic, wherein Komine et al. teaches an account authentication means including a user account management table for managing user account information and managing logon/logoff state information

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indicating a logged-on/logged-off state of the server application, **(Komine et al., Col. 9, Lines 38-45)**, to provide services and to a network monitoring system for performing distributed processing to monitor a network, **(Komine et al., Col. 1, Lines 12-16)**.

Regarding claim 33, the method according to claim 29, further comprising controlling the physical data transmission channel of the external data transmission interface based on the monitored data traffic, **[the PPP includes three main components, Link Control Protocol (LCP), Challenge Handshake Authentication Protocol/PPP Authentication Protocols (CHAP/PAP), and Internet Protocol Control Protocol (IPCP), (Tang et al., Paragraph 5)]**.

Regarding claim 34, the method according to claim 29, wherein the physical data transmission channel is always active, **[the data communication system 100 includes a plurality of user terminals 101, 102, 103, each operatively coupled to an access device 105 via a LAN connection 104, (Tang et al., Paragraph 39)]**.

Regarding claim 35, the method according to claim 29, further comprising: providing, at the subscriber terminal device, an internal data transmission interface configured to interface with a data processing unit, **[the user terminal may be configured to transmit a connect request to the access device in a dial-up application mode, in which case, (Tang et al., Paragraph 15)]**.

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monitoring data traffic received by the internal data transmission interface, **[the user terminal LAN connection to the access device 105 is monitored to detect when the user terminal 101 has transmitted a request to terminate the PPP session, or when the WAN connection 106 to the access device 105 is disconnected, (Tang et al., Paragraph 53)],**

and re-connecting the subscriber terminal device to the internet service provider by a logon procedure in the authentication channel when the data traffic is received by the internal data transmission interface, **[When configured to operate in the NAT router mode, the access device couples to user terminals via a Local Area Network (LAN) and to a remote server via a Wide Area Network (WAN). The remote server in turn connects to the Internet, (Tang et al., Paragraph 8)].**

Regarding claim 36, the method according to claim 29, further comprising: monitoring data traffic received by the external data transmission interface, **[the user terminal LAN connection to the access device 105 is monitored to detect when the user terminal 101 has transmitted a request to terminate the PPP session, or when the WAN connection 106 to the access device 105 is disconnected, (Tang et al., Paragraph 53)],**

and re-connecting the subscriber terminal device to the internet service provider by a logon procedure in the authentication channel when the data traffic is received by the external data transmission interface, **[When configured to operate in the NAT router mode, the access device couples to user terminals via a Local Area**

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Network (LAN) and to a remote server via a Wide Area Network (WAN). The remote server in turn connects to the Internet, (Tang et al., Paragraph 8)].

Regarding claim 37, a customer premises equipment, comprising: a data processing unit, **[The access device 105 includes a LAN interface 105a to operatively couple each of the user terminals 101, 102, 103 to the access device 105, (Tang et al., Paragraph 39)],**

an xDSL modem having a first interface and a second interface, the first interface for a connection between the xDSL modem and the data processing unit in order for the xDSL to receive a first data traffic, **[One example includes the xDSL (Digital Subscriber Line) type connection using an access device such as a DSL modem, which connects to the traditional twisted copper pair telephone lines to deliver high speed data transmission substantially faster than the traditional 56K dial-up type modems, (Tang et al., Paragraph 2)],**

the second interface for a connection between the xDSL modem and an internet service provider via a telecommunications network exchange in order for the xDSL to receive a second data traffic, **[upon receiving a PPP connect request from a user terminal at the LAN interface in a dial-up mode of application, or through the use of pre-configuration in a leased-line mode of application, the access device establishes a PPP session with a remote PPP server via its WAN interface, (Tang et al., Paragraph 12)],**

the second interface has an authentication channel in a layer higher than a physical data transmission layer, **[In the case of the dial-up mode of application, a valid PPP username and password is transmitted from the user terminal using a user interface discussed in further detail, (Tang et al., Paragraph 42)],**

the xDSL modem transfers data between the telecommunications network and the data processing unit based on the first and second data traffic, **[One example includes the xDSL (Digital Subscriber Line) type connection using an access device such as a DSL modem, which connects to the traditional twisted copper pair telephone lines to deliver high speed data transmission substantially faster than the traditional 56K dial-up type modems, (Tang et al., Paragraph 2)],**

and a control unit that monitors the first data traffic or the second data traffic and automatically controls a logon procedure and a logoff procedure in the authentication channel based on the monitored traffic, **[the user terminal LAN connection to the access device 105 is monitored to detect when the user terminal 101 has transmitted a request to terminate the PPP session, or when the WAN connection 106 to the access device 105 is disconnected, (Tang et al., Paragraph 53)],**

wherein when the monitored data traffic is not detected within a duration of time the control unit sends a control signal to the xDSL modem and the xDSL modem starts the logoff procedure which is carried out in the authentication channel, thereby causing the connection between the xDSL modem and the internet service provider to be logged off, **[If there is such a disconnect or line down detection, at step 310, the PPP session corresponding to the user terminal 101 is disconnected, while the access**

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device 105 assigns a private IP address to the disconnected user terminal 101 at step 303, and the procedure returns to step 301, (Tang et al., Paragraph 53)],

Tang et al. fails to explicitly teach controlling logon and logoff procedures in the authentication channel based on the monitored data traffic,

Komine et al. teaches an account authentication means including a user account management table for managing user account information and managing logon/logoff state information indicating a logged-on/logged-off state of the server application, **(Komine et al., Col. 9, Lines 38-45)**, to provide services and to a network monitoring system for performing distributed processing to monitor a network, **(Komine et al., Col. 1, Lines 12-16)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Tang et al. by controlling logon and logoff procedures in the authentication channel based on the monitored data traffic, wherein Komine et al. teaches an account authentication means including a user account management table for managing user account information and managing logon/logoff state information indicating a logged-on/logged-off state of the server application, **(Komine et al., Col. 9, Lines 38-45)**, to provide services and to a network monitoring system for performing distributed processing to monitor a network, **(Komine et al., Col. 1, Lines 12-16)**.

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Regarding claim 38, the customer premises equipment according to claim 37, wherein the first data traffic and the second data traffic are monitored, **[the user terminal LAN connection to the access device 105 is monitored to detect when the user terminal 101 has transmitted a request to terminate the PPP session, or when the WAN connection 106 to the access device 105 is disconnected, (Tang et al., Paragraph 53)]**.

Regarding claim 39, the customer premises equipment according to claim 37, wherein when the xDSL modem is logged off from a connection to the internet service provider and when the control unit detects the first data traffic: the control unit sends a control signal to the xDSL modem that trigger the xDSL modem to start the logon procedure which is carried out in the authentication channel, thereby logging the xDSL logged on to a connection to the internet service provider, **[When configured to operate in the NAT router mode, the access device couples to user terminals via a Local Area Network (LAN) and to a remote server via a Wide Area Network (WAN). The remote server in turn connects to the Internet, (Tang et al., Paragraph 8)]**.

Regarding claim 40, the customer premises equipment according to claim 37, wherein when the xDSL modem is logged off from a connection to the internet service provider and when the control unit detects the second data traffic: the control unit sends a control signal to the xDSL modem that trigger the xDSL modem to start the logon procedure which is carried out in the authentication channel, thereby logging the xDSL logged on to a connection to the internet service provider, **[When configured to operate in the NAT router mode, the access device couples to user terminals via a Local Area Network (LAN) and to a remote server via a Wide Area Network (WAN). The remote server in turn connects to the Internet, (Tang et al., Paragraph 8)].**

Regarding claim 42, the customer premises equipment according to claim 37, wherein the authentication channel has an authentication protocol embodied in accordance with a point-to- point protocol, **[the PPP includes three main components, Link Control Protocol (LCP), Challenge Handshake Authentication Protocol/PPP Authentication Protocols (CHAP/PAP), and Internet Protocol Control Protocol (IPCP), (Tang et al., Paragraph 5)].**

Regarding claim 43, the customer premises equipment according to claim 42, wherein the authentication channel has an authentication protocol embodied in accordance with a point-to- point over Ethernet protocol, **[the PPP may be referred to as PPPoA or PPPoE, the former referring to PPP over ATM (Asynchronous**

Transfer Mode), and the latter, referring to PPP over Ethernet, (Tang et al., Paragraph 6)].

Claims 32 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balfanz et al. (US 2004/0107366), in view of Komine et al. (US 7,281,027) and further in view of Humphery et al. (US 2002/00856401).

Regarding claims 32 and 41, The modified Balfanz et al. teaches a secure situation notification devices that can be used to securely receive and present information directed to a specific receiver, **(Balfanz et al., Paragraph 41, Page 3),**

The modified Balfanz et al. fails to teach that the subscriber terminal device includes an xDSL modem and the external data transmission interface transmits data embodied in accordance with the ITU G.992.1 standard or the ITU G.992.2 standard,

Humphery et al. teaches such non-terminated cables typically exhibit resonance characteristics at xDSL frequencies, **(Humphery et al., Paragraph 52),** and use of the groups of carriers used in the prior art of G.992.1 and G.992.2 for initialization messages using 8 bit/symbol over 4 carriers (QPSK) downstream direction, **(Humphery et al., Paragraph 60),** to provide a method of transmitting symbols in a wire line multi-carrier communication system, **(Humphery et al., Paragraph 18),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Balfanz by including an xDSL modem and the external data transmission interface transmits data embodied in accordance with the

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ITU G.992.1 standard or the ITU G.992.2 standard, wherein Humphery et al. teaches such non-terminated cables typically exhibit resonance characteristics at xDSL frequencies, **(Humphery et al., Paragraph 52)**, and use of the groups of carriers used in the prior art of G.992.1 and G.992.2 for initialization messages using 8 bit/symbol over 4 carriers (QPSK) downstream direction, **(Humphery et al., Paragraph 60)**, to provide a method of transmitting symbols in a wire line multi-carrier communication system, **(Humphery et al., Paragraph 18)**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. T./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446